

INOSOV, V.L.; KRUTIKOVA, V.Ye.

Schematic diagram of electric tractor control with a singlephase  
cable. Sbor.trud.Inst.elektrotekh. AN USSR no.14:124-126 '56.  
(Tractors) (Remote control) (MLRA 9:12)

PARRA, I.K.; KRUTIKOVA, V.Ya.

Magnetic commutator for a telemetering system. Avtomatyka  
no.1:69-81 '57. (MLRA 10:5)

1. Institut elektrotekhniki AN URSR.  
(Electric relays) (Telemeter)

*ALL THE VA, V. Ye.*  
INOSOV, V.L. doktor tekhn. nauk, prof.; KRUTIKOVA, V.Ye., kand. tekhn. nauk  
(Kiyev).

Investigating the synchronization of compound-wound motors. Elek-  
trichestvo no.2:56-59 P '58. (MIRA 11:2)  
(Electric motors, Synchronous)

INOSOV, Viktor Leont'yevich; KRUTIKOVA, Valentina Yevgen'yevna;  
KAMENEVA, Vera Aleksandrovna; POLYANSKIY, N., red.;  
GORKAVENKO, L., tekhn.red.

[Synchronous motors with excitation from semiconductor  
rectifiers] Sinkhronnye dvigateli s возбуждением от полупроводниковых выпрямителей. Kiev, Gos. izd-vo tekhn.lit-ry  
USSR, 1960. 125 p. (MIRA 14:2)  
(Electric motors, Induction)

KRUTIKOVA, V.Ye., kand.tokhn.nauk; MARALIN, V.G., inzh.; SIN'KOV, V.M.  
kand.tokhn.nauk

Effect of errors in determining the relative increments of fuel  
overconsumption. Elek.sta. 31 no.2:34-37 F '60.  
(MIRA 13:5)

(Electric power plants)

DAN'KO, A.V.; KRUTIKOVA, V.Ye.

Use of nonlinear elements in the circuits of the electric drive control  
for beet slicers and diffusers with continuous action. Sakh.prom. 38  
no.1:30-33 Ja '64. (MIRA 17:2)

1. Kiyevskiy tekhnologicheskij institut pishchevoy promyshlennosti im.  
Mikoyana.

KRUTIKOW, A.

"Some remarks on the protection of birds in the light of the law concerning protection of animals." (p. 40). CHROMY PRZYRODE OBCZYSTA (Panstwowa Rada Ochrony Przyrody) Krakow, Vol 9, No 5, Sept./Oct. 1953.

SO: East European Accessions List, Vol 3, No 8, Aug 1954.

KRUTIKOW, A.

AGRICULTURE

Periodicals: LAS POLSKI. Vol. 31, no. 23, Dec. 1957

KRUTIKOW, A. Feeding birds with fox meat. p. 20.

Monthly List of East European Accessions (FEAI) LC, Vol. 8, No. 2,  
February 1959, Unclass.



KRUTIKOW, A.

Critical remarks concerning the protection of birds. p.16

LAS POLSKI. (Ministerstwo Lasnictwa oraz Stowarzyszenia Naukowo-Techniczne  
Inzynierow i Technikow Lasnictwa i Drzemnicta) Warszawa, Poland  
Vol.29, no.5 May.1959

Monthly list of East European Accessions (EEAI) LC, Vol. 9, no.2, Feb. 1960

Uncl;

ZALMAN, E.; KRUTILEK, V.; STOZKA, R.

Fermented fruit juices in the treatment of alcoholics. Prakt. lek.,  
Praha 31 no. 4:80-83 20 Feb 1951. (CJML 22:3)

1. Of the Institute of Research and Treatment of Narcomania (Head  
Physician and Director--Emil Zalman, M. D.) at State Psychiatric  
Hospital and PAP Institute of National Health (Director -- Vr.  
Sovadina, M. D.).

KRUTILIN, G.

Intra-abdominal echinococcus simulating acute appendicitis.  
Folia med. (Plovdiv) 7 no.3:214-216 '65.

1. Vysshiiy meditsinskiy institut imeni I.P. Pavlova, g.  
Plovdiv, Bolgariya (rukovoditel' - prof. L. Khaydudov).

MIKHAYLOV, V.; KAMBUROV, S.; KARPANOV, M.; KHUTILIN, G.

Application and indications for retroperitoneum. Khirurgia,  
Sofia 6 no.7:414-422 1953. (CML 25:5)

1. Professor for Mikhaylov. 2. Institute of General Roentgenology  
(Head -- Prof. V. Mikhaylov) and Surgical Propedeutic Clinic (Prof.  
A. Chervenakov) of I. P. Pavlov Medical Academy, Plovdiv.

KRUTILIN, G.

Clinical changes in acute peritonitis during antibiotic therapy: the so-called masked peritonitis. Khirurgia, Sofia 11 no.5-6:422-423 1958.

(ANTIBIOTICS, ther. use,  
peritonitis (Bul))  
(PERITONITIS, ther.  
antibiotics (Bul))

FILIPPOVA, L.A.; PROKOF'YEV, M.A.; KRUTILINA, A.I.

Synthesis and properties of N<sub>6</sub>-carbobenzohydroxyphenylalanylcytidine-2':  
3'-phosphate. Biokhimiia 28 no.3:433-438 My-Je 63. (MIRA 17:?)

1. Chemical Faculty, State University, Moscow.

KRUTILINA, A.I., MIRZABEKOV, A.D., VENKSTERN, T.V.; BAYEV, A.A.

Nucleotide composition and oligonucleotides of the pyrimidol  
ribonuclease hydrolysate of valine-specific transfer RNA  
Biokhimiia 30 no.6:1225-1235 N-D '65. (MIRA 19:1)

1. Institut molekulyarnoy biologii AN SSSR, Moskva. Submitted  
March 19, 1965.

MIRZABEKOV, A.D.; KRUTILINA, A.I.; GORSHKOVA, V.I.; BAYEV, A.A.

Separation of transfer ribonucleic acid from solutions by  
flotation of its cetavlon salts. Biokhimiia 29 no.6:1158-  
1162 N-D '64. (MIRA 18:12)

1. Institut radiatsionnoy i fiziko-khimicheskoy biologii AN  
SSSR, Moskva. Submitted June 16, 1964.



MIRZABEKOV, A.D.; KPUTILINA, A.I.; RESHETOV, P.D.; SANDAKHCHIEV, L.S.;  
KNORRE, D.G.; KHOKHLOV, A.S.; BAYEV, A.A.

Preparative production of enriched valine-acceptor transfer RNA  
from baker's yeast. Dokl. AN SSSR 160 no.5:1200-1202 P '65.  
(MIRA 18:2)

1. Institut radiatsionnoy i fiziko-khimicheskoy biologii AN SSSR,  
Novosibirskiy institut organicheskoy khimii Sibirskogo otdeleniya  
AN SSSR i Institut khimii prirodnkh soedineniy AN SSSR. Sub-  
mitted June 9, 1964.

L 8590-66 EWT(m)/T/EWP(b)/EWA(c)/EWP(t) IJP(c) JG/JD

ACCESSION NR: AP5019898

UR/0181/65/007/008/2569/2571

AUTHOR: Zingerman, Ya. P.; Ishchuk, V. A.; Krutilina, T. A.

TITLE: Some features of the interaction between oxygen and the surface of single-crystal tungsten

SOURCE: Fizika tverdogo tela, v. 7, no. 8. 1965, 2569-2571

TOPIC TAGS: oxygen, tungsten, single crystal, surface active agent, metal oxidation, adsorption

ABSTRACT: This is a continuation of earlier work (FTT v. 6, 1172, 1964 and v. 7, 227, 1965) on the interaction between oxygen and polycrystalline tungsten. The purpose of the present investigation, in which single-crystal tungsten was used, was to determine the effect of the surface structure on the interaction. Two indirectly heated discs (5 mm dia. and 0.6 mm thick) with faces parallel to the [100] and [110] planes and cut from the same single crystal were measured simultaneously in the same experimental setup. The alignment of the samples is described. The experimental technique was similar to that used in the earlier investigations. From the difference in the equalization rates of the work functions on the two surfaces it is deduced that the oxygen condensation coefficients are different on the two surfaces. Appreciable differences were also noted in the oxygen adsorption on

Card 1/2

2

L 8590-66  
ACCESSION NR: AP5019898

2

the two surfaces. On the closer packed [110] face there was no interaction between the adsorbed oxygen atoms and the tungsten atoms. The decrease in the work function of the [100] surface is also discussed. "The authors thank D. A. Gorodetskiy for indexing the single-crystal targets by the slow-electron-diffraction method." Orig. art. has: 2 figures.

ASSOCIATION: Institut fiziki AN UkrSSR, Kiev (Institute of Physics AN UkrSSR)

SUBMITTED: 09Apr65

ENGL: 00

SUB CODE: 88

NR REF SOV: 002

OTHER: 003

jw  
Card 2/2

MATUSEVICH, M.G., kand. ekon. nauk; MILOVANOV, V.A., kand. ist. nauk; NIKITIN, G.A., kand. geogr. nauk; GURVICH, G.Ts. kand. ekon.nauk; GOLUBEV, B.P., nauchn. sotr.; KRUTILINA, T.N., nauchn. sotr.; MIKHNEVICH, L.M., nauchn. sotr.; GIORGIDZE, Z.I., kand. ekon. nauk; RAVUN, I.I., kand. ekon. nauk; OKUN', M.V., kand. ekon.nauk; KOVALEVSKIY, G.T., kand. ekonom. nauk; KHROMOV, P.A., doktor ekonom. nauk, nauchnyy red.; LEONENKO, I., red. izd-va; ATLAS, A., tekhn. red.

[Economy of White Russia during the period of imperialism, 1900 - 1917] Ekonomika Belorussii v epokhu imperializma, 1900-1917. Minsk, Izd-vo AN BSSR, 1963. 420 p.  
(MIRA 17:3)

1. Akademiya navuk BSSR, Minsk, Instytut ekonomiki.
2. Institut ekonomiki AN BSSR (for all except Leonenko, Atlas).

POPOV, Aleksandr Anatol'yevich; KRUTIN, G.I., retsenzent; FEDOROV, V.F.,  
retsenzent; LEONT'YEVSKIY, Ye.S., red.; KBERLIN, K.Z., red. izd-va;  
TSVETKOVA, S.V., tekhn. red.

[Internal combustion marine engines] Sudovye dvigateli vnutrennego  
sgoraniia. Moskva, Izd-vo "Rachnoi transport," 1957. 426 p.  
(Marine engines) (MIRA 11:2)

POPOV, Vyacheslav Yakovlevich; POTAPOV, N.S., retsenzent; KRUTIN, G.I.,  
retsenzent; MYASHNIKOV, N.V., red.; KUZOVLEV, V.A., red.;  
SHLENNIKOVA, Z.V., red.izd-va; YERMAKOVA, T.T., tekhn.red.

[Marine engines] Sudovaya mekhanika. Moskva, Izd-vo "Rechnoi  
transport," 1959. 386 p. (MIRA 12:10)  
(Marine engineering)

RENSKIY, Nikoley Mikhaylovich; KOKHOV, A.F., retsenzent; KHUTIN, G.I.,  
retsenzent; KITA, V.F., red.; SHLENNIKOVA, Z.V., red.izd-va;  
BODROVA, V.A., tekhn.red.

[Manual for marine mechanics] Posobie sudovomu motoristu.  
Moskva, Izd-vo "Rechnoi transport," 1960. 285 p.

(MIRA 13:12)

(Marine engines)

KRUTINA, Jar.; BEDNAR, Boh., nositel vyznamenani "Za vynikajici praci";  
KADLECIK, Frantisek, nositel Radu prace.

Making better use of locomotives in freight train operation.  
Zel dop tech 11 no.5;150-151 '63.

1. Lokomotivni depo, Ceska Trebova. 2. Strojvedouci instruktor (for  
Bednar); 3. Strojvedouci (for Kadlecik).



KRUTINA, Vratislav

The food industry at the threshold of the year 1964.  
Prum potravin 15 no.1:1-2 Ja'64.

1. Ministr potravinarskeho prumyslu, Praha.

KRUTINA, Vratislav

The year 1965, another step in the development of socialist society. Prum potravin 16 no.1:1-3 Ja '65.

1. Minister of the Food Industry, Prague. Submitted December 15, 1964.

KRUTINSKIY, M. i KHACHATURYAN, G.

19980 KRUTINSKIY, M i KHACHATURYAN, G. Stalinskiy plan preobpazobaniya prirody.  
Nauch. konferentsiya, organiz. Vsesoyuz. s.-kh. v-vom. Dek. 1948g. / Isvestiya  
Akad. nauk. SSSR, Otd-niye ekonomiki i prava, 1949, No. 3, s. 188-200.

SO: LETOPIS ZHURNAL STATEY, Vol. 27, Moskva, 1949.

А. И. Кутельный, М. И.

4. Arsenic-containing compounds of copper and zinc.

M. B. Kuperman, V. I. Orlov, M. N. Krutitskaya, and A. I. Trushkina. *Izvestiya Akad. Nauk SSSR, Khim. Nauk* 1955, 236-43. With sulfates of Cu and Zn as the precipitants, the arsenates of the elements were prepd. from aq. solns. of  $\text{Na}_2\text{As}_2\text{O}_7$  contg. 50-80 g. l.  $\text{As}_2\text{O}_5$ . Similarly, arsenites were obtained from solns. contg. a mixt. of  $\text{Na}_2\text{As}_2\text{O}_7$  and  $\text{NaAsO}_2$  with 250-500 g./l. of  $\text{As}_2\text{O}_3$  and pH of the soln. 9.8-10.6 at 70-80°. The compds. prepd. were:  $\text{Cu}(\text{AsO}_4)_2 \cdot \text{Cu}(\text{OH})_2$  (I),  $\text{Cu}(\text{AsO}_4)_2 \cdot \text{H}_2\text{O}$  (II),  $\text{Cu}_2(\text{AsO}_4)_3 \cdot \text{Cu}(\text{OH})_2$  (III),  $\text{Cu}_2(\text{AsO}_4)_3$  (IV),  $\text{Zn}_2(\text{AsO}_4)_3$  (V),  $\text{Zn}(\text{AsO}_4)_2$  (VI),  $\text{Zn}_2(\text{AsO}_4)_3$  (VII), and  $\text{Zn}_3(\text{AsO}_4)_4$  (VIII). In 30% aq.  $\text{NH}_4\text{OH}$  and  $\text{AcOH}$  these compds. formed the following complexes (the data given are compd. in soln. compn. of complex after equil. is established expressed in %  $\text{As}_2\text{O}_5$  and %  $\text{CuO}$  or  $\text{ZnO}$ , compn. of the residue at 25°): VII in 10%  $\text{NH}_4\text{OH}$ , 8.74, 2.01,  $\text{As}_2\text{O}_5$ , 3.25,  $\text{ZnO}$ , 1.7  $\text{NH}_4\text{OH}$ , 0.11  $\text{H}_2\text{O}$ ; VII in 5%  $\text{NH}_4\text{OH}$ , 1.81, 2.01,  $\text{As}_2\text{O}_5$ , 3.40  $\text{ZnO}$ , 1.9  $\text{NH}_4\text{OH}$ , 0.51  $\text{H}_2\text{O}$ ; IV in 10%  $\text{NH}_4\text{OH}$ , 8.42, 1.4,  $\text{As}_2\text{O}_5$ , 5.20  $\text{CuO}$ , 0.81  $\text{NH}_4\text{OH}$ , 7.51  $\text{H}_2\text{O}$ ; IV in 5%  $\text{NH}_4\text{OH}$ , 5.5, 4.28,  $\text{As}_2\text{O}_5$ , 3.82  $\text{CuO}$ , 0.25  $\text{NH}_4\text{OH}$ , 1.71  $\text{H}_2\text{O}$ ; III in 10%  $\text{NH}_4\text{OH}$ , 7.4, 6.7,  $\text{As}_2\text{O}_5$ , 3.5  $\text{CuO}$ , 0.25  $\text{NH}_4\text{OH}$ , 2.31  $\text{H}_2\text{O}$ ; III in 5%  $\text{NH}_4\text{OH}$ , 3.79, 2.88,  $\text{As}_2\text{O}_5$ , 4.65  $\text{CuO}$ , 1.6  $\text{NH}_4\text{OH}$ , 4.71  $\text{H}_2\text{O}$ . At 70°: VII in 10%  $\text{NH}_4\text{OH}$ , 3.72, 0.73,  $\text{As}_2\text{O}_5$ , 3.45  $\text{ZnO}$ , 0.42  $\text{NH}_4\text{OH}$ ; VII in 5%  $\text{NH}_4\text{OH}$ , 1.0, 0.5,  $\text{As}_2\text{O}_5$ , 2.84  $\text{ZnO}$ , 0.3  $\text{NH}_4\text{OH}$ , 1.21  $\text{H}_2\text{O}$ ; IV in 10%  $\text{NH}_4\text{OH}$ , 8.55, 2.06,  $\text{As}_2\text{O}_5$ , 4.1  $\text{CuO}$ , 0.78  $\text{NH}_4\text{OH}$ , 4.11  $\text{H}_2\text{O}$ ; IV in 5%  $\text{NH}_4\text{OH}$ , 5.6, 1.94,  $\text{As}_2\text{O}_5$ , 3.4  $\text{CuO}$ .

0.43  $\text{NH}_4\text{OH}$ , 5.81  $\text{H}_2\text{O}$ ; III in 10%  $\text{NH}_4\text{OH}$ , 5.67, 6.03,  $\text{As}_2\text{O}_5$ , 5.7,  $\text{CuO}$ , 3.2  $\text{NH}_4\text{OH}$ , 7.61  $\text{H}_2\text{O}$ ; III in 5%  $\text{NH}_4\text{OH}$ , 3.48, 1.8,  $\text{As}_2\text{O}_5$ , 4.95  $\text{CuO}$ , 2.3  $\text{NH}_4\text{OH}$ , 6.51  $\text{H}_2\text{O}$ . At 70° (compn. of the complex expressed in %  $\text{As}_2\text{O}_5$  and %  $\text{CuO}$  or  $\text{ZnO}$ , followed by the compn. of the residue): VI in 5%  $\text{NH}_4\text{OH}$ , 6.7, 2.37,  $\text{As}_2\text{O}_5$ , 1.25  $\text{ZnO}$ , 0.81  $\text{H}_2\text{O}$ ; VI in 10%  $\text{NH}_4\text{OH}$ , 14.79, 5.72,  $\text{As}_2\text{O}_5$ , 1.42  $\text{ZnO}$ , 0.54  $\text{H}_2\text{O}$ ; V in 5%  $\text{AcOH}$ , 1.52, 1.79,  $\text{As}_2\text{O}_5$ , 2.02  $\text{ZnO}$ , 1.1  $\text{H}_2\text{O}$ ; V in 10%  $\text{AcOH}$ , 1.95, 6.65,  $\text{As}_2\text{O}_5$ , 2.32  $\text{ZnO}$ , 1.1  $\text{H}_2\text{O}$ ; II in 5%  $\text{NH}_4\text{OH}$ , 7.85, 1.73,  $\text{As}_2\text{O}_5$ , 1.1  $\text{CuO}$ , 2.11  $\text{H}_2\text{O}$ ; II in 10%  $\text{NH}_4\text{OH}$ , 15.85, 9.44,  $\text{As}_2\text{O}_5$ , 2.1  $\text{CuO}$ , 0.07  $\text{NH}_4\text{OH}$ , 6.31  $\text{H}_2\text{O}$ ; I in 5%  $\text{NH}_4\text{OH}$ , 6.07, 5.76,  $\text{As}_2\text{O}_5$ , 3.56  $\text{CuO}$ ,  $\text{NH}_4\text{OH}$ , 1.01  $\text{H}_2\text{O}$ ; I in 10%  $\text{NH}_4\text{OH}$ , 6.36, 11.6,  $\text{As}_2\text{O}_5$ , 4.2  $\text{CuO}$ , 0.51  $\text{H}_2\text{O}$ . At 25°: VI in 5%  $\text{NH}_4\text{OH}$ , 8.14, 3.12,  $\text{As}_2\text{O}_5$ , 1.02  $\text{ZnO}$ , 0.5  $\text{H}_2\text{O}$ ; VI in 10%  $\text{NH}_4\text{OH}$ , 17.15, 3.96,  $\text{As}_2\text{O}_5$ , 1.02  $\text{ZnO}$ , 0.5  $\text{H}_2\text{O}$ ; V in 5%  $\text{AcOH}$ , 2.5, 3.42,  $\text{As}_2\text{O}_5$ , 3.29  $\text{ZnO}$ , 1.21  $\text{H}_2\text{O}$ ; V in 10%  $\text{AcOH}$ , 3.72, 6.44,  $\text{As}_2\text{O}_5$ , 2.77  $\text{ZnO}$ , 2.21  $\text{H}_2\text{O}$ ; II in 5%  $\text{NH}_4\text{OH}$ , 5.44, 3.93,  $\text{As}_2\text{O}_5$ , 1.46  $\text{CuO}$ , 0.51  $\text{H}_2\text{O}$ ; II in 10%  $\text{NH}_4\text{OH}$ , 12.48, 5.7,  $\text{As}_2\text{O}_5$ , 1.9  $\text{CuO}$ , 1.31  $\text{H}_2\text{O}$ ; I in 5%  $\text{NH}_4\text{OH}$ , 4.02, 4.47,  $\text{As}_2\text{O}_5$ , 3.9  $\text{CuO}$ , 3.01  $\text{H}_2\text{O}$ ; I in 10%  $\text{NH}_4\text{OH}$ , 5.97, 5.65,  $\text{As}_2\text{O}_5$ , 3.5  $\text{CuO}$ , 1.8  $\text{H}_2\text{O}$ .

A. P. Kotel'nyy

(3)

KUPERMAN, M.Ye.; ORLOV, V.I.; ~~KHUTITSKAYA, M.N.~~; TRUSHKINA, N.I.

Aqueous suspensions of powder and paste-type DDT and hexachloro-  
cyclohexane compounds used for spraying. [Trudy] NIUIF no.156:  
187-199 '55. (MLRA 9:10)

(DDT (Insecticide)) (Benzene hexachloride)

KUPERMAN, M.Ye.; ORLOV, V.I.; KRUTITSKAYA, M.N.; TRUSHKINA, N.I.

Aqueous suspensions of 15% and 20% DDT compounds used for  
spraying. [Trudy] NIUIF no.156:199-201 '55. (MLRA 9:10)

(DDT (Insecticide))

KRUTITSKAYA, M.N.; ORLOV, V.I.; IVANOVA, B.S.

Investigation of new inorganic insecticides and fungicides and the development of combined preparations (formula, application and technology). [Trudy] NIUIF no.164:37-38 '59. (MIRA 15:5)  
(Insecticides) (Fungicides)

KRUTITSKAYA, M. N., Cand Chem Sci -- (diss) "Investigation of the chemistry and technology of zinc arsenates." Moscow, 1960. 26 pp; with charts; (State Committee of the Council of Ministers USSR for Chemistry, Scientific Inst for Fertilizers and Insectofungicides im Prof Ya. V. Samoylov); 200 copies; price not given; (KL, 17-60, 142)



ORLOV, V.I., kand.tekhn.nauk; MOROZOVA, M.A.; KRUTITSKAYA, A.A.

Inorganic insecticides and fungicides. Zhur. VRO 5 no. 3:268-  
274 '60. (HIA 14:2)

(Insecticides) (Fungicides)

**KRUTITSKAYA, M. N.**

Investigation of zinc arsenates. [Trudy] NIUIF no.167:156-172 '60.  
(MIRA 13:8)  
(Zinc arsenate) (Wood preservatives)

KRUTITSKAYA, M.N., ORLOV, V.I., IVANOVA, B.S., ANDREYEVA, Ye.I.,  
GOLYSHIN, N.M., ZUBOV, M.F.

Investigation of zinc subchromates as new fungicides for the  
treatment of green plants and seeds. [Trudy] NIUIF no.167:173-185  
'60. (MIRA 13:8)

(Zinc chromates)

(Fungicides)

GOLYSHIN, N.M., ZUBOV, M.F., KRUTITSKAYA, M.N., ORLOV, V.I.

Comparative fungicidal activity of some basic copper and zinc salts.

[Trudy] NIUIF no.167:186-192 '60. (MIRA 13:8)

(Copper salts) (Zinc salts) (Fungicides)

ORLOV, V. L., KRUTITSKAYA, M. M., BRUK, A. S., IVANOVA, B. S.

Antiseptics containing arsenic as wood preservatives. [Trudy]

NIUIF no.167:201-207 '60.

(MIRA 13:8)

(Arsenic)

(Wood preservatives)

KRUTITSKAYA, M.I.; IVANOVA, B.S.

Methods for determining small amounts of arsenic (survey). Zav.  
lab. 30 no.10:1173-1177 '64. (MIRA 18:4)

*Куперман, М.Я., Орлов, В.И., Крутицкая, С.Н., Трушкина, Н.И.*

USSR/Inorganic Chemistry - Complex Compounds.

C.

Abs Jour : Ref Zhur - Khimiya, No 9, 1957, 30284

Author : Kuperman, M.Ye., Orlov, V.I., Krutitskaya, S.N.,  
Trushkina, N.I.

Inst :

Title : Investigations of Arsenous Compounds of Copper and Zinc.

Orig Pub : Sb. Issledovaniya po prikladnoy khimii, M.-L., Izd-vo  
AN SSSR, 1955, 236-243

Abst : Under laboratory conditions were prepared  $\text{Cu}_3(\text{AsO}_3)_2$ ,  
 $\text{Cu}(\text{OH})_2$ ,  $\text{Cu}(\text{AsO}_2)_2$ ,  $\text{Cu}_3(\text{AsO}_4)_2 \cdot \text{Cu}(\text{OH})_2$ ,  $\text{Cu}_2(\text{AsO}_4)_2$ ,

$\text{Zn}_3(\text{AsO}_3)_2$ ,  $\text{Zn}(\text{AsO}_2)_2$ ,  $\text{Zn}_3(\text{AsO}_4)_2$  and  $\text{Zn}_2(\text{AsO}_4)_2$ .

$\text{Zn}(\text{OH})_2$ . A determination was made of the amounts of  
 $\text{As}_2\text{O}_3$  or  $\text{As}_2\text{O}_5$  and  $\text{CuO}$  or  $\text{ZnO}$ , dissolved in solutions of  
 $\text{NH}_3$  and  $\text{CH}_3\text{COOH}$  at 25 and 70°.

Card 1/1

22(1)

SOV/27-59-4-7/28

AUTHOR: Krutitskiy, B., School Director

TITLE: The Mining Profession

PERIODICAL: Professional'no-tekhnicheskoye obrazovaniye, 1959, Nr 4,  
p 11 (USSR)

ABSTRACT: Technical School Nr 1, attached to the "Stalinugol'" Trust, is training highly skilled machinist-mechanics of coal combines, electro-mechanics for the repair of mining equipment, machinists of electric mining locomotives and drift miners of mechanized drifts. At present students of the school are working in the mines of the Trusts "Rutchenkovugol'", "Budenovugol'", "Kuybyshevugol'", "Stalinugol'" and others. Many graduates continue their studies in correspondence institutes and technical schools. In this connection, the author mentions the Moskovskiy politekhnicheskii institut (Moscow Polytechnical Institute), and the Donetskii industrial'nyy institut (Donets Industrial Institute). There are 5 photographs.

ASSOCIATION: Tekhnicheskoye uchilishcho Nr 1 (Technical School Nr 1)  
Card 1/1



SLADKOSHTEYEV, V.T., kand. tekhn. nauk; VARTAZAROV, M.A., inzh.;  
KRUTITSKIY, M.A., inzh.; SHATAGIN, O.A., inzh.

Horizontal continuous casting of nonferrous metals. Met. i  
gornorud. prom. no.1:47-50 Ja-F '62. (MIRA 16:6)

1. Ukrainskiy nauchno-issledovatel'skiy institut metallov  
(for Sladkoshteyev). 2. Khar'kovskiy zavod alyuminiyevykh i  
bronzovykh splavov (for Vartazarov, Krutitskiy, Shatagin).  
(Nonferrous ingots)  
(Continuous casting)

MATROSOV, I.K., laureat Stalinskoy premii; YEGORCHENKO, V.F.; KARVATSKIY,  
B.L.; AGAYONOV, M.I.; KRYLOV, V.I.; PEROV, A.N.; KRUTITSKIY,  
V.F.; SUYAZOV, I.G.; TIKHONOV, P.S., red.; KHITROV, P.A., tekhn.red.

[Automatic brakes; installation, operation, maintenance, and  
repair] Avtotormoza; ustroistvo, upravlenie, obsluzhivanie i  
remont. Izd.4., ispr. i dop. Moskva, Gos.transp.zhel-dor.izd-vo,  
1951. 253 p. (MIRA 12:11)

(Brakes)

KRUTITSKIY, V.F.; TIKHONOV, P.S., inzhener, redaktor; BRAYLOVSKIY, N.G.,  
inzhener, redaktor.

[Automatic-brake control points and compressor units] Kontrol'nye  
punkty avtotormozov i kompressornye ustanovki. 2., perer. i dop. izd.  
Moskva, Gos.transp.shel-dor.izd-vo, 1953. 251 p. (MIRA 7:3)  
(Air brakes) (Compressors)

ZHEVNOVATYY, A.I.; VOLKOV, V.N.; PEVZNER, I.Z.; Prinimali uchastiye:  
KRUK, O.P.; KRUTITSKIY, V.M.; KOL'TSOV, I.M.; TSVETKOV, F.A.

Effect of elastic ultrasonic waves on reducing the speed of  
scale formation. TSvet. met. 35 no.3:48-53 Mh '62.

(MIRA 15:4)

(Ultrasonic waves--Industrial applications)

YUMATOV, A.A., inzhener; ~~XXXXXXXXXXXXXXXXXXXX~~ KRUTITSKIY, Yu.Ye., inzhener.

Is it necessary to ground the body of electric machines in school  
laboratories. Elektrichestvo no.10:82-83 0 '56. (MLBA 9:11)  
(Electric engineering)

"APPROVED FOR RELEASE: 06/14/2000

CIA-RDP86-00513R000826810018-7

APPROVED FOR RELEASE: 06/14/2000

CIA-RDP86-00513R000826810018-7"

**"APPROVED FOR RELEASE: 06/14/2000**

**CIA-RDP86-00513R000826810018-7**

**APPROVED FOR RELEASE: 06/14/2000**

**CIA-RDP86-00513R000826810018-7"**

KARMAZIN, V.I., kandidat tekhnicheskikh nauk; KRUTIY, V.V., tekhnik.

Industrial practice of magnetic separation of chert by permanent magnet separation. Gor.shur. no.6:47-51 Je '56. (MLRA 9:8)

1. Nauchno-issledovatel'skiy gornorudnyy institut.  
(Magnetic separation of ores) (Chert)



"APPROVED FOR RELEASE: 06/14/2000

CIA-RDP86-00513R000826810018-7

APPROVED FOR RELEASE: 06/14/2000

CIA-RDP86-00513R000826810018-7"

KARMAZIN, V.I.; KHUTII, V.V.

Device for rapid analysis of dry powders for ferromagnetic impurities.  
Zav. lab. 23 no.3:367-368 '57. (MIRA 10:6)

1. Krivorosheskiy nauchno-issledovatel'skiy gornorudnyy institut.  
(Powder metallurgy) (Magnetic instruments)

KARMAZIN, V.I.; KRUTII, V.V.

Roller-type separator with a strong magnetic field. Bul.  
tekh.-ekon.inform. no.2:6-8 '60. (MIRA 13:6)  
(Magnetic separation of ores)

KARMAZIN, V.I., doktor tekhn.nauk: KHERSONETS, L.N., inzh.; KRUTIIY, V.V.,  
inzh.; NIKOLAYENKO, V.P.; PILINSKIY, G.I., inzh.

Industrial testing of magnetic separators with counterflow and  
semicounterflow tanks. Gor. zhur. no.11:63-65 N '61.

(MIRA 15:2)

1. Mekhanobrchermet, Krivoy Rog.

(Separators (Machines))

KARMAZIN, V.I.; KRUTIIY, V.V.; NIKOLAYENKO, V.P.

Industrial practice in wet electromagnetic separation of  
ilmenite sands in 2VK-5 separators. TSvet.met. 34 no.10:21-24  
0 '61. (MIRA 14:10)

1. Mekhanobrchermet.  
(Ilmenite) (Magnetic separation of ores)

KARMAZIN, Vitaliy Ivanovich, doktor tekhn. nauk, prof. Prinsipali  
uchastiye: KRUTII, V.V.; SANZHAROVSKIY, P.A.; GUBIN, G.V.;  
ZUBAREV, S.N., otv. red.; ARZAMASOV, N.A., red.izd-va;  
BOLDYREV, Z.A., tekhn. red.

[Modern methods of magnetic separation of ferrous metal ores]  
Sovremennyye metody magnitnogo obogasheniya rud chernykh  
metallov. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po gor-  
nomu delu, 1962. 658 p. (MIRA 15:3)  
(Magnetic separation of ores) Iron ores)

SHINKORENKO, S.F., kand.tekhn.nauk; LIBEFORT, Yu.I., inzh.; KRUTII, V.V.,  
inzh.; CHERNIY, I.I., inzh.; TSYURYUPA, A.D., inzh.;  
GRAZHDANTSEV, I.I.

Setting up departments of secondary treatment in ore dressing  
plants of the Nikopol'-Marganets Trust. Gor.zhur. no.4:68-71  
Ap '64. (MIRA 17:4)

1. Mekhanobrchermet (for Shinkorenko, Libefort, Krutiy, Chernyy,  
Tsyuryupa). 2. Trest Nikopol'-Marganets (for Grazhdantsev).

BINKEVICH, V.A., gornyy inzh.; GRAZHDENTSEV, I.I., gornyy inzh.; KRUTIY, V.V.,  
gornyy inzh.; PILINSKIY, G.I., gornyy inzh.

New separator for the dressing of weakly magnetic ore. Gorzhur.  
no.1:62-64 Ja '65. (MIRA 18:3)



KRUTIY, V.V.; ARMASHOVA, Z.P.; GRAMM, V.A.

New ERM-2 electromagnetic separator. Met. 1 gornorud. prom. no.2:  
65-67 Mr-Ap '65. (MIRA 18:5)

KRUTIY, V.V.; ARMASHOVA, Z.P.

Elevator unloading of products of magnetic separation.  
Met. 1 gornorud. prom. no.3:69 My-Je '65. (MIRA 18:11)

PISKULIN, V.K.; KRUTKINA, P.A.; KRASIL'NAYA, A.A. (Yalta)

Effect of oxygen baths on hypertension. Vrach. delo no.5:142-143  
My '62. (MIRA 15:6)

1. Sanatoriy "Zhemchuzhina", Yalta.  
(HYPERTENSION) (OXYGEN THERAPY)  
(BATHS, MEDICATED)

KRUT'KO, N.F.

Effect of some preparations of the phenothiazine series on the  
regeneration of the bone tissue. Pat.fiziol.i eksp.terap. 9  
no.4:180-82 J1-Ag '65.  
(MIRA 18:9)

1. Kafedra patologicheskoy fiziologii (zav. - dozent N.F.  
Krut'ko) Kurakogo meditsinskogo instituta i otbol khimioterapii  
(zav. - prof. A.M.Ghermekh) Instituta farmakologii i khimioterapii  
(direktor - deyatel'nyy chlen AMN SSSR prof. V.V.Zakusov) AMN  
SSSR, Moskva.

MURAV'YEV, Vasilii Petrovich; DMITRIYEV, Gennadiy Andreyevich;  
FILATOV, Mikhail Nikolayevich; SAFOKHIN, Mikhail Samsonovich;  
GOL'DBERG, Leonid Abramovich; KRUT'KO, Mariya Vladimirovna;  
NECHAYEV, Vadim Ivanovich; KOLCHANOV, Vitaliy Dmitriyevich;  
BESSONOV, Yevgeniy Aleksandrovich; OBLOMSKIY, Ivan Yefimovich;  
KORABLEV, A.A., otv. red.; ABRAMOV, V.I., red. izd-va;  
PROZOROVSKAYA, V.L., tekhn. red.

[Automation in the coal mining industry] Avtomatizatsia v  
ugol'noi promyshlennosti. [B] V.P.Murav'ov i dr. Moskva,  
Gosgortekhnizdat, 1962. 258 p. (MIRA 15:10)  
(Coal mines and mining) (Automation)

"APPROVED FOR RELEASE: 06/14/2000

CIA-RDP86-00513R000826810018-7

APPROVED FOR RELEASE: 06/14/2000

CIA-RDP86-00513R000826810018-7"

KRUT'KO, H.P. (Kursk)

Effect of certain neurotropic substances on the regeneration of  
bone tissue in acute radiation sickness. Pat.fiziol. i eksp.terap.  
3 no.1:72 Ja-F '59. (MIRA 12:2)

1. Iz kafedry patofiziologii (zav. - prof. M.P. Derevyagin) Kur-  
skogo meditsinskogo instituta.

(BONE)

(RADIATION SICKNESS)

(SODIUM BROMIDE)

(CAFFEINE)

KRUT'KO, N.F. (Kursk)

Reorganization of the teaching of pathological physiology. Pat.  
fiziol.i eksp. terap. 4 no.4:90-91 J1-Ag '60. (MIRA 14:5)

1. Iz kafedry patofiziologii (ispolnyayushchiy obyazannosti zavedu-  
yushchego - dotsent N.F.Krut'ko) Kurskogo meditsinskogo instituta.  
(PHYSIOLOGY, PATHOLOGICAL STUDY AND TEACHING)



KUTKO, N. P.

"The Problem of the Morphological Developmental Characteristics of the Formation of Neuroplia." Cand Med Sci, Tashkent State Medical Institute V. M. Molotov, Min Health USSR, Tashkent 195h. (EL, No 7, Feb 56)

SO: Sum. No. 631, 26 Aug 55 - Survey of Scientific and Technical Dissertation Defended at USSR Higher Educational Institutions. (14)

TEREKHOV, G.H., professor; KRUT'KO, N.P., kandidat meditsinskikh nauk

Work of the Tashkent Province Society of Pathoanatomists during  
1954 to 1955. Arkh.pat. 18 no.8:127-129 '56. (MLRA 10:2)

1. Predsedatel' Tashkentskogo oblastnogo obshchestva patologoanatomov  
(for Terekhov). 2. Sekretar' Tashkentskogo oblastnogo obshchestva  
patologoanatomov (for Krut'ko)  
(ANATOMY, PATHOLOGICAL)

TEREKHOV, G.N., prof.; KRUT'KO, N.P., kand.med.nauk

Work of the Tashkent Province Society of Pathoanatomists in 1957.  
Arkhn.pat. 21 no.2:91-92 '59. (MIRA 12:12)

1. Predsedatel' Tashkentskogo oblastnogo obshchestva patologoanatomov  
(for Terekhov). 2. Uchenyy sekretar' Tashkentskogo oblastnogo obshche-  
stva patologoanatomov (for Krut'ko).

(TASHKENT PROVINCE--PATHOANATOMICAL SOCIETIES)

TEREKHOV, G.N.; KRUT'KO, M.P.

Annual report of the Tashkent Province Pathoanatomical  
Society for 1959. Med. zhur. Uzb. no.4:73 Ap '60. (MIRA 15:3)  
(TASHKENT PROVINCE—MEDICAL SOCIETIES)

KHUSANOV, Kh.Kh., kand.med.nauk; KRUT'KO, N.P., kand.med.nauk

Histomorphological changes in the roseolous syphilides of the skin  
in syphilitic patients treated with bitsillin 1. Med. zhur. Uzb.  
no.1:55-58 Ja '61. (MIRA 14:6)

1. Iz kafedry dermato-venerologii (zav. - dotsent I.A.Telishevskiy)  
Tashkentskogo gosudarstvennogo instituta usovershenstvovaniya vrachey.  
(SYPHILIS) (PENICILLIN)

KRUT'KO, N.P., kand.med.nauk; KHUSANOV, Kh.Kh., kand.med.nauk

Histomorphological changes in epidermic syphilids following bicillin treatment of syphilis. Med. zhur. Urb. no.9:24-26 S '61.

(MIRA 15'2)

1. Iz kafedry dermato-venorologii Instituta usovershenstvovaniya vrachey  
(zav. - dotsent I.A.Telishevskiy).  
(BICILLIN) (SYPHILIS)

ACC NR: AP6033947

SOURCE CODE: UR/0280/66/000/004/0194/0200

AUTHOR: Krut'ko, P. D. (Moscow)

ORG: none

TITLE: Analytical design of optimal numerical controllers

SOURCE: AN SSSR. Izvestiya. Tekhnicheskaya kibernetika, no. 4, 1966, 194-200

TOPIC TAGS: optimal control system, functional equation, nonlinear functional operator, nonlinear equation, difference equation, characteristic equation, nonlinear differential equation, differential equation solution, dynamic programming

ABSTRACT: The author establishes the relation between the dynamic programming method and the variational method, and shows that the problem of analytical design of a numerical controller can be reduced to the solution of linear algebraic equations. Let a system in motion, including disturbances, and all system elements be described by a system of difference equations

$$\Delta y_l(n) = \sum_{h=1}^k b_{lh} y_h(n) + m_l u(n) \quad (l = 1, 2, \dots, k), \quad (1)$$

where  $y_l$  are the generalized coordinates,  $u$  is the control function, and  $b_{lh}$  and  $m_l$  are constants. Let also, at time  $t_0 = 0$ , the system's state be described by a set of

Card 1/4

ACC NR: AP6033947

values.  $y_1(0) = y_{10}, y_2(0) = y_{20}, \dots, y_h(0) = y_{h0}. \quad (2)$

The problem of analytical design consists then in finding the equation for the control function of the controller

$$u(n) = \varphi(y_1(n), y_2(n), \dots, y_h(n)), \quad (3)$$

which insures the motion of the system from the point with coordinates (1) into the origin of coordinates

$$y_1(\infty) = y_2(\infty) = \dots = y_h(\infty) = 0 \quad (4)$$

with a minimum value of the functional

$$(5) \quad J(u) = \sum_{n=0}^{\infty} [a_1 y_1^2(n) + a_2 y_2^2(n) + \dots + a_h y_h^2(n) + \beta u^2(n)],$$

that is a general quadratic quality criterion of the transient process. The method of the dynamic programming leads to the synthesis of an equation for an optimal controller in the form

$$u(n) = q \sum_{r=1}^h \rho_r y_r(n), \quad (6)$$

where the constants  $q$  and  $\rho_r$  are given by the expressions

$$q = -\frac{1}{2\beta + \sum_{i,j=1}^h m_i m_j (A_{ij} + A_{ji})}, \quad \rho_r = \sum_{i=1}^h m_i \left[ A_{ri} + A_{ir} + b_{ir} \sum_{j=1}^h (A_{ij} + A_{ji}) \right]. \quad (7)$$

Card 2/4



ACC NR: AP6033947

Here the constants  $A_{ij}$  are the coefficients of the form

$$\psi(y_1, y_2, \dots, y_h) = \sum_{i,j=1}^h A_{ij} y_i y_j + B \quad (8)$$

and may be found from two functional equations of the type

$$\begin{aligned} & \sum_{i=1}^h a_i y_i^2(n) + \beta u^2(n) + \sum_{i=1}^h \frac{\partial \psi}{\partial y_i} \left[ \sum_{h=1}^h b_{ih} y_h(n) + m_i u(n) \right] + \\ & + \frac{1}{2} \sum_{i,j=1}^h \frac{\partial^2 \psi}{\partial y_i \partial y_j} \left[ \sum_{h=1}^h b_{ih} y_h(n) + m_i u(n) \right] \left[ \sum_{h=1}^h b_{jh} y_h(n) + m_j u(n) \right] = 0 \quad (9) \end{aligned}$$

$$2\beta u(n) + \sum_{i=1}^h m_i \frac{\partial \psi}{\partial y_i} + \sum_{i,j=1}^h m_i \left[ \sum_{h=1}^h b_{ih} y_h(n) + m_i u(n) \right] \frac{\partial^2 \psi}{\partial y_i \partial y_j} = 0, \quad (10)$$

Thus the task of analytical design reduces to the solution of the equations (9,10) with respect to the unknown coefficients  $A_{ij}$ . The difficulties of this approach are in that

Card 3/4

ACC NR: AP6033947

the equation (9,10) are nonlinear. Furthermore, only values of  $A_{ij}$  can be used which satisfy condition (8). No less serious is the problem of choosing the weighting coefficients  $\alpha_i$  and  $\beta$  of the functional (5), which yield the desired quality of the transient processes. The author proposes a method which substantially simplifies the solution of the fundamental problem. This method consists of replacing the equation (9) by an equivalent linear algebraic system of equations in the form

$$\Delta \lambda_i(n-1) = - \sum_{h=1}^k b_{hi} \lambda_h(n) + 2\alpha_i y_i(n) \quad (i=1,2,\dots,k). \quad (11)$$

and the equation (10) by a similar equation

$$2\beta u(n) - \sum_{i=1}^k m_i \lambda_i(n) = 0. \quad (12)$$

which can be used to form the desired expression for the control function

$$u(n) = \frac{1}{2\beta} \sum_{i=1}^k m_i \lambda_i(n). \quad (13)$$

These equations can be readily solved by conventional techniques. The obtained results substantially simplify synthesis of closed loop control systems. The author includes detailed derivation of all equations and an illustrative example. The author thanks N. N. Krasovskiy and Ya. Z. Tsypkin for their advice and comments. Orig. art. has: 41 formulas.

SUB CODE: 09,12/ SUBM DATE: 15Feb65/ ORIG REF: 005

Card 4/4

L 15051-66 EWT(d)/EWP(v)/EWP(k)/EWP(h)/EWP(1)

ACC NR: AP6002157

SOURCE CODE: UR/0280/65/000/006/0140/0145

AUTHOR: Krut'ko, P. D. (Moscow)

ORG: none

TITLE: Analytical designing of digital controllers by the method of dynamic programming

SOURCE: AN SSSR. Izvestiya. Tekhnicheskaya kibernetika, no. 6, 1965, 140-145

TOPIC TAGS: digital controller, dynamic programming, automatic controller design

ABSTRACT: An A. M. Letov variety of the dynamic programming method is used to solve this variational-calculus problem: Find the equation of a controller  $u(n) = \varphi(y_1(n), y_2(n), \dots, y_k(n))$ , which ensures the system migration from a point with coordinates  $y_1(0) = y_1^0, y_2(0) = y_2^0, \dots, y_k(0) = y_k^0, u(0) = u^0$  to the origin of coordinates, minimizing the functional:

$$I(u) = \sum_{n=0}^{\infty} F[y_1(n), y_2(n), \dots, y_k(n), u(n)],$$

where  $F(y_1, y_2, \dots, y_k, u) = a_1 y_1^2(n) + a_2 y_2^2(n) + \dots + a_k y_k^2(n) + \beta u^2(n)$   
( $a_i, \beta > 0$ ).

Card 1/2

12021-00

ACC NR: AP6002157

The disturbed motion of the system consisting of a plant, an actuating element, and pertinent amplifiers and converters is described by  $k$  first-order difference equations:  $\Delta y_i(n) = \sum_{\lambda=1} b_{i\lambda} y_{\lambda}(n) + m_i u(n) \quad (i = 1, 2, \dots, k)$ , where  $y_{\lambda}$  are the generalized system coordinates,  $u(n)$  are the control function,  $b_{i\lambda}$  and  $m_i$  are constant numbers. It is proven that the above problem can be reduced to solving algebraic equations with respect to coefficients  $A_{ij}$  of a certain quadratic form. "The author wishes to thank Ya. Z. Tsypkin for the statement of the problem and attention to it." Orig. art. has: 42 formulas.

SUB CODE: 13 / SUBM DATE: 18Sep64 / ORIG REF: 004

09/

Card 2/2

31262

S/103/61/022/011/002/014  
D201/D306

16.8000 (1131)

AUTHOR: Krut'ko, P. D., (Moscow)

TITLE: The problem of discrete forming-filter calculation

PERIODICAL: Avtomatika i telemekhanika, v. 22, no. 11, 1961,  
1432-1440

TEXT: In the present article, the author considers the class of random processes which may be obtained by solving difference equations. The pulse system transforming the discrete "white" noise into the discrete random process with a given correlation function, is called by the author the discrete forming filter. Since, in general, such a filter may be non-stationary, its equation is given by

$$\Phi_n(\Delta, n) Y[n] = \Psi_n(\Delta, n) V[n] \quad (3)$$

where V - the discrete "white" noise with unit intensity; Y - the random process being formed with the correlation function  $K_y[n, m]$ ;  
Card 1/3

31262  
S/103/61/022/011/002/014  
D201/D306

The problem of discrete ...

$\Phi$  and  $\Psi$  - the difference operators determined by

$$\Phi_n(\Delta n) \equiv \sum_{i=0}^k a_i[n] \Delta_n^i, \quad \Psi_n(\Delta, n) \equiv \sum_{i=0}^h b_i[n] \Delta_n^i \quad (4)$$

where  $\Delta_n^i$  - the operation of taking the difference of order  $i$  and argument  $n$ ;  $a_i$  and  $b_i$  - real functions of the discrete argument. Thus, given the correlation function  $K_y[n; m]$  of the random process  $Y$  being formed, the problem of calculating the discrete forming filter reduces to that of determining difference operators  $\Phi_n(\Delta, n)$  and  $\Psi_n(\Delta, n)$ . This problem is solved in the present article. The difference operators  $\Phi_n(\Delta, n)$  and  $\Psi_n(\Delta, n)$  solve the problem of calculating a discrete forming filter. The application of such filters is

Card 2/3

The problem of discrete ...

31262  
S/103/61/022/011/002/014  
D201/D306

then considered for statistical analysis of the transient state of a stationary pulse system. Such analysis is normally reduced to determining the dispersion of the output variable of the system, with a random process applied to the input. The author acknowledges the interest and help of A. P. Grishin and V. N. Gotesman. There are 3 figures and 4 Soviet-bloc references. [Abstractor's note: Ref. 4 is a translation from a non-Soviet-bloc publication.]

SUBMITTED: March 6, 1961

4

Card 3/3

S/024/62/000/003/007/011  
E140/E463

16.4600

AUTHOR: Krut'ko, P.D. (Moscow)

TITLE: ~~Method for~~ continuous determination of output  
coordinate dispersion in linear pulse systems

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye  
tekhnicheskikh nauk. Energetika i avtomatika, no.3,  
1962, 173-177

TEXT: The author formulates the problem of determining the dispersion as a function of time in the following manner: a pulse system, in general nonstationary, is given by a single difference equation of order  $k$  from which it is required to find a difference equation whose solution is the dispersion of the output coordinate of the system, given a certain random input disturbance  $X$ . A simple case is first considered, where the pulse system is described by a first-order difference equation. The author limits himself for simplicity to consideration of lattice functions, and the input disturbance is taken in the form of white noise. The first difference of the square of the output variable is found and the operation of mathematical expectation

Card 1/2

✓  
B



Method for continuous ...

S/024/62/000/003/007/011  
E140/E463

applied to the equation. The relative dispersion is found in the form of a recursive relationship. The result is then generalized, except that the restriction to lattice functions is retained. The system of order  $k$  is reduced to a system of first order difference equations. It is noted that the method is equivalent to the method of determination of second-order moments as applied to continuous systems by V.S.Pugachev (Teoriya sluchaynykh funktsiy (Theory of random functions). Fizmatgiz, 1960).

SUBMITTED: June 30, 1961

Card 2/2

KRUT'KO, P.D. (Moskva)

Discrete analog of Dirac  $\delta$ -function. Avtom. i telem. 23  
no.7:985-986 J1 '62. (MIRA 15:9)  
(Automatic control) (Differential equations)

KRUT'KO, P.D. (Moskva)

Method for determining optimal weight functions of discrete  
filters for a certain class of nonstationary random processes.  
Izv. AN SSSR. Otd. tekhn. nauk. Tekhn. kib. no.1:71-78 Ja-F '63.

(MIRA 16:7)

(Electric filters) (Automatic control) (Radio filters)

KRUT'KO, P.D. (Moskva)

Determination of the incoming signal of a linear pulse system  
equivalent to initial conditions. Izv. AN SSSR. Otd. tekhn.  
nauk. Tekhn. kib. no.1:201-202 Ja-F '63. (MIRA 16:7)

(Automatic control)

AM4020391

BOOK EXPLOITATION

S/

Krut'ko, Petr Dmitriyevich

Statistical dynamics of pulse systems (Statisticheskaya dinamika impul'snykh sistem) Moscow, "Sovetskoye radio", 1963. 558 p. illus., biblie., index. 11,550 copies printed. Editor: Ivanushko, N. D.; Technical editor: Belyayeva, V. V.

TOPIC TAGS: pulse systems, automatic control, stationary, nonstationary, linear, nonlinear, optimum pulse systems, random action, conjugate pulse systems

PURPOSE AND COVERAGE: This book is intended for engineers in the field of automatic control. Problems of the statistical dynamics of pulse systems for automatic control and the theory of nonstationary pulse systems are analyzed. Methods for determining the accuracy of stationary and nonstationary linear and nonlinear pulse systems are outlined, and methods for determining optimum systems both for stationary and for nonstationary random actions are developed. The author is indebted to Ya. S. Itskhaka, Ya. Z. Tsypkin, A. P. Grishin, V. M. Semenov, P. G. Burlakov, V. N. Gerasimov, L. A. Osipov, and A. A. Kravetskiy for

Card 1/3

AM4020391

their assistance in preparing parts of the text. He also expresses his gratitude to Ya. Z. Tsypkin, V. P. Perev, and S. F. Bavarev for reviewing the manuscript.

TABLE OF CONTENTS:

Foreword	- - 3
Ch. I. Mathematical apparatus. Characteristics of linear pulse systems	- - 8
Ch. II. Conjugate pulse systems	- - 149
Ch. III. Statistical analysis of linear pulse systems	- - 194
Ch. IV. Statistical analysis of nonlinear pulse systems	- - 307
Ch. V. Determination of optimum stationary pulse systems with an infinite observation time (discrete analog of the problem of N. Wiener)	- - 393
Ch. VI. Determination of optimum pulse systems with a finite observation time	- - 427
Ch. VII. Methods of determining optimum nonstationary pulse systems	- - 473
Literature	- - 548
Subject index	- - 553

Card 2/3

IVANOV, S.K.; KOVALLVSKAYA, V.I.; KRUT'KO, V.T.; RUDENSKIY, I.M.

The VSE-200 pneumatic fan. Bezop.truda v prom. 5 no.1:21-22 Ja '61.  
(MIRA 14'2)

1. Dongiprouglemash.  
(Mine ventilation)

SPD-2/TEC(K)-2/ENT(4) EWP(1)

BY DD/MD

OPERATION NH. AT5011619

UR/0000/04/000/000/0463/0467



SECRET

SECRET

ENCLOSURE

SECRET

BRIT'KOV, A., 1944, 1945, 1946, 1947, 1948, 1949.

The NIS-950 mobile pumping station. Prakt. 1 kollektivnash.  
no.5137 My '64. (NIRA 1746)

1. Golovnoye konstruktorskoye byuro i organizatsiya  
osobshchestva zayola "Pechel'mash."

KRUT'KOV, A.F.; IZOTOV, I.S.

The OZG-120 sprayer for greenhouses. Trakt. 1 sel'khoz mash. no.8:  
30-31 Ag '64. (MIRA 17:11)

1. Golovnoye konstruktorskoye byuro po mekhanizatsii ovoshchevodstva.

KRUT'KOV, A.F.

The OZG-120 sprayer for protected grounds. Biul.tekh.-ekon.  
inform. no.3:53-54 '61. (MIRA 14:3)  
(Spraying and dusting equipment)

KRUTKOVA, A.S.

Comparative study of methods for the determination of virulence of diphtherial cultures in vivo and in vitro. Zhur.mikrobiol.epid. i immun. 27 no.4:31-34 Ap '56. (MLBA 9:7)

1. Iz Moskovskogo instituta epidemiologii, mikrobiologii i gigiyeny. (CORYNEBACTERIUM DIPHTHERIAE, culture virulence of various cultures in vivo & in vitro)

MAMAYEVA, Ye.A.; KRUTKOVA, A.S.

Culture media for bacteriological diagnosis of whooping cough  
available in wide laboratory practice. Zhur.mikrobiol.epid. i  
immun. 27 no.12;27-29 D '56.  
(MLRA 10:1)

1. Iz Moskovskogo instituta epidemiologii, mikrobiologii i gigiyeny.  
(WHOOPING COUGH, diagnosis,  
bacteriol. methods, culture media (Rus))  
(CULTURE MEDIUMS,  
Haemophilus pertussis, for bacteriol. diag. (Rus))

KRUTMAN, A.I.

Reaction of ethyl chloroformate with organomagnesium compounds.  
Zhur. Obshchey Khim. 22, 1342-6 '52. (MLRA 5:8)  
(CA 47 no.13:6337 '53)

PANFILOVA, M.M.; KONSTANTINOVA, O.I.; KRUTMAN, A.M.

Cellophane. Standartizatsia 28 no.9:58-59 S '64.

(MIRA 18:2)



A

containing alloy, metal corrosion/ steel 02-21-57, steel 02-21-57, "

data are presented, and the following

and VMLL/NSG9AD can be used as substitutes for steels 1K118N9T and  
in a variety of corrosive media.

KRUTOGOLOV, G.V., konstruktor; ORLOV, G.A., konstruktor

Dragavtsev machine used for track maintenance. Put' put.khoz.  
no.9:8-10 8 '59. (MIRA 12:12)

(Ballast(Railroads)--Maintenance and repairs)  
(Railroads--Equipment and supplies)

IVANOV, P.A.; KRUTOGOLOV, V.D.

Viscosimeters for continuous measurements. Izv. vys. ucheb.zav.;  
prib. no.2:69-72 '58. (MIRA 11:7)

1.Gor'kovskiy issledovatel'skiy fiziko-tekhnicheskii institut.  
(Viscosimeter)